



## **Management Committee Meeting Summary**

July 26, 2017

9:30 am – 12:30 pm

Executive Office of Energy and Environmental Affairs

100 Cambridge Street, Room 2B, Boston

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### **Attendees:**

#### *Management Committee*

Julia Blatt (Massachusetts Rivers Alliance [Rivers Alliance])  
Robert Buchsbaum (Salem Sound Coastwatch [SSCW])  
Joe Cosgrove (Merrimack Valley Planning Commission [MVPC])  
Andrew Gottlieb (Association to Preserve Cape Cod [APCC])  
Jon Kachmar, Chair (The Nature Conservancy [TNC])  
Beth Lambert (MA Division of Ecological Restoration [DER])  
John Logan (f/Kathryn Ford) (MA Division of Marine Fisheries [DMF])  
Regina Lyons (U.S. Environmental Protection Agency [EPA])  
Steve McCurdy (Massachusetts Department of Environmental Protection [MassDEP])  
Rebecca Newhall (National Oceanic and Atmospheric Administration [NOAA])  
Vandana Rao, Vice Chair (Executive Office of Energy and Environmental Affairs [EEA])  
Brad Washburn (MA Office of Coastal Zone Management [CZM])  
Samantha Woods (North and South Rivers Watershed Association [NSRWA])

#### *Coordinators and Staff*

Pam DiBona (MassBays, Executive Director)  
Prassede Vella (MassBays, Staff Scientist)  
Margherita Pryor (EPA Region 1, Coordinator)  
Barbara Warren (SSCW, Lower North Shore Regional Coordinator)  
Sara Grady (NSRWA, South Shore Regional Coordinator)  
Carole McCauley (NUMSC, Metro Boston Regional Coordinator)  
Jo Ann Muramoto (APCC, Cape Cod Regional Coordinator)  
Peter Phippen (MVPC, Upper North Shore Regional Coordinator)

#### *Guest Presenters*

Shannon Davis, UMass Boston  
Francesco Peri, UMass Boston

### **Welcome and Introductions**

Chair Jon Kachmar opened the meeting and welcomed the attendees. After introductions and review of the [agenda](#), Pam DiBona introduced Steve McCurdy as the new representative of the DEP. Steve serves as Director of Municipal Services in MassDEP's Water Resources Division. John Logan, Fisheries Habitat scientist at DMF, sat in for Kathryn Ford.

### **Committee Business**

#### Conflict of Interest Statement

Chair Jon Kachmar introduced the [Conflict of Interest Policy](#) which describes conditions under which committee members should recuse themselves from voting on specific motions (e.g., the yearly budget). There being no objections, Jon asked committee members to sign the forms and return them to Pam. Although the statement does not expire, committee members will sign it on a yearly basis, as this will serve as a reminder of obligations.

### New Chair and Vice-Chair

The Nominating and Governance Subcommittee nominated Kristin Uiterwyk and Colin Van Dyke as Chair and Vice Chair respectively for 2-year terms beginning July 26, 2017. Following a motion to bring forward for approval (Joe Cosgrove, seconded by Vandana Rao), the nominations were approved unanimously.

### Science and Technical Advisory Subcommittee (STAC) business

Prassede provided a quick update on the status of the EDA 2.0 work – maps for 69 assessment units are finalized and shared with NUMSC to replace the EDA 1.0 maps and revise the embayment categories. They will also continue to work on the targets and final products and report will be available by no later than January 2018. At the same time, MassBays is exploring the feasibility of applying the Biological Condition Gradient approach to implement targets and track changing conditions in estuarine embayments. Emily Shumchenia (a consultant with EPA ORD in Narragansett) will present the approach developed by EPA in 2006, at the next STAC meeting on August 10. STAC will then discuss in depth the applicability of this approach for MassBays and will report to the management committee accordingly. Emily's presentation will be recorded and made available to STAC members who may not be available, and shared with the management committee.

Following up on the presentation to the EPA Program Evaluation team in April, Alison Branco, Director of the Peconic NEP and a member of the review committee, invited MassBays to present our work on Estuarine Delineation and Assessment (EDA 2.0) to her Technical Advisory Committee. As the Peconic NEP is in the process of developing a monitoring program and associated indicators, they are interested in whether our approach could be applied there. Alison is organizing a webinar for October 2017 (exact date TBD) during which MassBays and NUMSC will provide a presentation describing the EDA 2.0 process. An invitation will be extended to the management committee to participate as this detailed technical description will provide information prior to tasking the management committee's endorsement of the finalized process at the October 25 meeting.

### Finance Subcommittee business

In response to EPA's requirement to develop a financial plan, Colin Van Dyke has agreed to chair a Finance Subcommittee. Pam asked for others' participation, and Carole McCauley and Andrew Gottlieb offered to sit on the Subcommittee. All are invited as interested.

### **Project update: Coastal Acidification Monitoring**

*Prassede Vella, MassBays  
Shannon Davis & Francesco Peri, UMass Boston*

Prassede introduced the [Interagency Working Group on Ocean Acidification](#), an effort that includes EPA and the [Northeast Coastal Acidification Network](#) (NECAN). EPA's engagement led to the development of a network of coastal acidification monitoring stations in eight National Estuary Programs, including MassBays. MassBays applied for a grant from EPA, and received \$70,000 to build and deploy a coastal observing system in Duxbury Bay. Prassede's presentation is available [here](#). MassBays teamed up with UMass Boston's [Coastal Environmental Sensor Network](#) to implement the project; they presented their work to the Committee next.

Shannon Davis provided a detailed background of the chemistry of coastal acidification and its existing and anticipated impacts on marine ecosystems. Francesco Peri followed up with a detailed description of the system components and utility for year-round, continuous monitoring of pCO<sub>2</sub> and pH. The system will be deployed on the Duxbury Town Pier and will be maintained by volunteers trained and coordinated through the South Shore Regional Service Provider (NSRWA). Duxbury's Harbormaster and Sara Grady will play key roles in hosting and maintaining the system once it is in place (anticipated September 2017). Prassede will collect discrete water samples as QA/QC for the continuous monitoring measurements; she will deliver the samples to EPA's Narragansett Laboratory for total dissolved carbon and total alkalinity analyses. All data will be shared with the Northeast Regional Association of Coastal and Ocean Observing Systems ([NERACOOS](#)) through their [real-time data portal](#). UMass Boston's presentation is available [here](#).

### *Discussion*

The Committee was pleased with this project, noting that it will serve as a tool for carrying out some of the CCMP actions. Members discussed the importance of making the data available. The research team hopes that this project and the findings will serve as the start of a bigger project that further funding would help implement in Massachusetts waters. MassBays aims to use the information: (1) to further scientific research, and (2) to provide guidance to industry stakeholders and help address impacts on marine ecosystems as well as the economic and social wellbeing of communities depending on this industry.

Pam asked the group to consider the policy and management implications of this work – how can these data be put to use? Committee members pointed out that the data these will be unique to Duxbury Bay and recommended careful consideration before applying the findings in other areas. Prassede described a proposal that MassBays and UMass Boston submitted to MIT Sea Grant to develop a portable system that we can temporarily deploy in other embayments to gather additional site-specific data. In addition, MassBays and UMass have been talking to local hatcheries about teaming up on concurrent data collection. Comparisons across the region will be possible with these additional data sets.

Committee members identified potential collaborations with others conducting biological/physiological studies related to acidification, e.g. at Northeastern University, WHOI, MIT, and UMass Boston.

The Committee listed pH monitoring efforts like the Cape Cod Cooperative Extension's monitoring program at four sites in Cape Cod Bay and in Nantucket Sound since 2004; in addition, some existing offshore buoys include pH probes. Although pH alone is not sufficient to calculate data on aragonite saturation (the parameter used to measure coastal acidification), the committee suggested exploring the potential to add sensors to existing buoys that will provide complementary data.

### **2017-2018 Workplan**

*Pam DiBona, MassBays*

Pam DiBona presented an [overview of the 2017-2018 work plan](#) for MassBays, with a budget request of \$600k. Among FY17 accomplishments and completed projects, Pam highlighted:

- More than 3500 acres of habitat restored
- Revision and update of the embayment delineation and assessment (EDA2.0) completed
- Launching of a Citizen Monitoring Coordinators' Network
- Completion of various region-specific projects, including:
  - USGS study of the effects of SLR on Cape Cod groundwater system
  - Social network analysis of the Boston Harbor Ecosystem Network (formerly Boston Harbor habitat Coalition)
  - More than 80% of third Herring Brook on the South River reopened to fish migration with the removal of the 342-year-old Tack Factory Dam
  - A plastic bag reduction ordinance passed in Salem (initiated by teen interns working in the Lower North Shore region)
  - Establishment of Green Crab R&D, a new nonprofit leading a culinary-based effort to control invasive green crabs in Upper North Shore estuaries and beyond

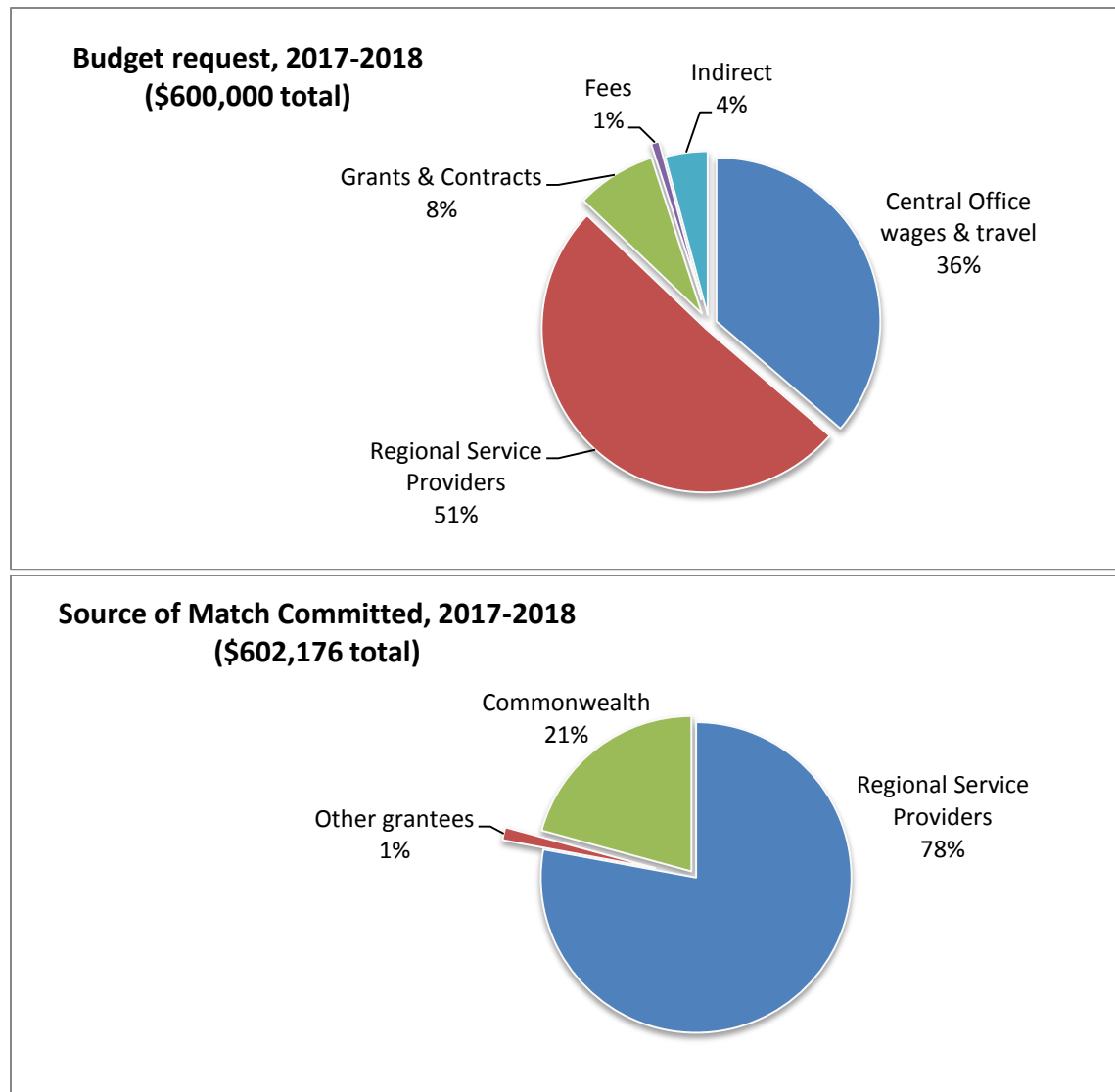
Plans for the coming year include:

- Submitting the final revised CCMP to EPA
- Developing a Resource Assessment and Restoration Tool (establishing environmental targets and tracking tool, connecting to State of the Bays reporting)
- Addressing research and data gaps (through the monitoring program, funding grants in Fall 2017, launching the coastal acidification monitoring, and continued eelgrass mapping)
- Supporting Citizen Monitoring Coordinators' Network
- Addressing environmental and management challenges in all regions

Pam then highlighted the EPA Program Evaluation of the MassBays program which took place in April. A findings letter is in preparation at EPA Headquarters. One of the needs highlighted by EPA in their on-site program evaluation presentation is better showcasing of MassBays' work and accomplishments on the

program website. While we have been planning for a complete update of the website, that effort is delayed due to a complete overhaul of the mass.gov system currently taking place. About \$15k are in the budget for development of an outreach and communications plan. Pam invited the Communications Subcommittee to provide input to this task.

Finally, she shared budget information, including sources of the 1:1 matching funds required for EPA funding under the NEP Cooperative Agreement:



#### *Discussion*

Committee members asked for more detail about the required 1:1 matching funds, and how they are spent and secured. Pam explained that matching funds do not come into MassBays' operating budget, but instead are non-federal funds committed by others to supplement MassBays' investment into programming.

While all grantees are required to provide 25% match to their request for funding, Pam further explained that MassBays relies on the Regional Service Providers (RSPs) providing as much as possible toward that requirement. This year CZM provided a match of \$125k, state capital funds granted to communities in the MassBays planning area through the coastal resilience grant. Andrew Gottlieb strongly suggested the need to seek alternative sources of matching funds, rather than relying on the RSPs, and explore possibilities of obtaining more match from the state capital fund. Once funding is promised as match to MassBays, that

funding cannot be used to match other grant monies (for example, if the RSP were to apply for EPA or NOAA funding separately). Pam suggested the Finance Subcommittee discuss how to increase match provided by the state, and opportunities to bring in more funds in general to our work (cash and in-kind). Other NEPs hosted by state agencies may have good examples of how these matching funds are secured for their programming.

### **Staff Updates: Regional Coordinators**

Regional updates are organized according to the seven action areas of the implementation workplan:

1. Gathering data on conditions and trends (DATA)
2. Reducing stormwater discharge volumes and pollutant loadings (SW)
3. Reducing contamination from wastewater (WW)
4. Adapting to/mitigating impacts of climate change (CC)
5. Removing barriers to streamflow and tidal flushing (SF)
6. Managing invasive species (IS)
7. Conducting education and outreach (E&O)

#### ***Gather data on conditions and trends [DATA]***

- Upper North Shore
  - Marsh Edge Erosion (MEE) Assessment: RTK GPS and associated data collection from the 22 sites in Great Marsh has been completed for the Marsh Edge Erosion. Pre-winter and spring (erosional period) data are being analyzed to determine rates of loss.
- Lower North Shore
  - Working on a Tree Ordinance and a Tree Inventory for the City of Salem; ESRI Story map completed for the pilot study which will be updated when the current inventory completed this fall.
- South Shore
  - Anadromous Fish: Trained and managed volunteers (including Boy Scouts), counted fish at Tidmarsh Farms and Great Herring Pond, planned herring outreach for fishing tournament, management of South River for fish passage, tested camera system, attended meeting about Pembroke herring run, coordinated herring count data entry, electrofishing with DMF.
  - Shellfish Restoration: Planned and conducted Gulf River shellfish surveys, developing a GIS map of the bottom and shellfish habitat which will form part of the Town of Scituate's shellfish resource information.
  - Eelgrass mapping and monitoring in DKP: Helped develop scope and budget with an associated timeline starting July 2017.
  - State invertebrate monitoring program support: Planned and conducted horseshoe crab surveys and trained volunteers, wrote report on horseshoe crabs for NSRWA e-news.
  - Coastal acidification monitoring: Provided background on project to media and followed up on project progress
- Cape Cod
  - Inventory and prioritization of coastal habitat restoration and stormwater projects for funding: APCC's Restoration Center staff and the RC have completed a prioritized list of projects. A report was submitted to MassBays describing the process and presenting findings and recommendations.
  - Herring counts, 2017: Volunteers conducted visual counts at 19 runs, including 8 on Cape Cod Bay. QA/QC review is underway. Several runs also had electronic counters, including Stony Brook, which will enable comparison of run size estimates using visual counts with electronic counts. There are issues with electronic counters, but ultimately the best available method should be used to estimate herring populations.
  - Monitoring juvenile herring: APCC's Whitlock intern is developing a research plan to monitor juvenile herring using video counting methods. The RC helped the intern obtain approval from the Conservation Commission and assisted with coordination with DMF, Town officials, and others. Partners include the Town of Brewster, MIT Sea Grant, DMF, and Cape Cod Cooperative Extension. Installation at Stony Brook is planned for 7/25.

### ***Reduce stormwater discharge volumes and pollutant loadings [SW]***

- Lower North Shore
  - Greenscapes: Greenscapes recruiting communities for FY18, developed MS4 rack card for distribution, updating new Greenscapes website and reached 1146 students, 44 teachers and 103 adult volunteers with our "Keeping Water Clean" 5th grade school program.
  - Low-Impact Development: Salem's Commercial Street Rain Gardens (5) have been adopted by Salem Sound Coastwatch. We cleaned them in April and weeded, fertilized and pruned in June with 30 employees from Cell Signaling. This fall we will be weeding, planting and cleaning again. We are studying the level and salinity of water inundation to determine with the correct plantings for each rain garden. I will be leading a North River Walk and Talk on September 23 for the Essex Heritage Trails and Sails. (DSC09406.jpg)
  - Adopt-a-Beach program: Held 2 training sessions for 26 new volunteer beachkeepers, conducted clean ups at 12 beaches.
  - RC helped the City of Salem publicize their single-use plastic bag reduction ordinance that goes into effect January 2018. Two of our *Talking Trash for Clean Beaches* high school interns have begun a similar call for an ordinance in Beverly.
- Cape Cod
  - 604b grant awarded to form Cape Cod Stormwater Coalition: In June the Cape Cod Commission was awarded a 604b grant to form a Cape Cod Stormwater Coalition to help towns meet their MS4 needs. In the previous quarter APCC had worked with the Commission and 10 towns to prepare the proposal. The project includes a needs assessment, cost assessments for towns, and development of tools and recommendations to form a cost-effective and environmentally effective stormwater coalition. The RC began working with the Commission on information collection.
  - 319 proposal for stormwater and tidal restoration in Brewster: The RC prepared a 319 grant proposal for the Town for stormwater remediation and tidal restoration at Crosby Landing Beach at the western end of Namskaket Marsh in the Inner Cape Cod Bay ACEC. APCC will conduct pre- and post-restoration monitoring of the tidal marsh. Crosby Landing Beach was identified as experiencing net accretion, according to a sediment budget study conducted by the Center for Coastal Studies, suggesting the long-term sustainability of a salt marsh restoration project appears good.

### ***Reduce contamination from wastewater [WW]***

- Lower North Shore
  - Clean Beaches and Streams Program: Completed FY17 report with list of hotspots and began sampling this summer at 14 sites

### ***Adapt to/mitigate impacts of climate change [CC]***

- Upper North Shore
  - Eelgrass restoration: Eelgrass harvest and restoration efforts continued in Essex Bay between April and June. Recent results indicate eelgrass to be thriving in Essex Bay, showing increase in habitat structure and trophic level and food web stability in the restored meadow comparable to donor sources. It is important to note that the success of transplanting efforts is largely dependent on youth and community engagement.
  - A Drought Task Force was developed to focus on impacts of drought and how to manage these impacts in wetlands on the north shore.
  - On May 3, the Great Marsh Resiliency Partnership (which includes MassBays and the RC) received an EPA Environmental Merit Award for their work to reduce the vulnerability of communities to coastal storms, sea level rise and other climate change impacts. The project takes a holistic approach including near-term restoration activities and long-term modeling and planning, navigating the complex connections between natural resource conservation and socioeconomic priorities, jurisdictional authority, and diverse management values. From 2015-2017 accomplishments included: eradicating invasive pepperweed and common reed from >400 ac of saltmarsh, establishing 3000 ft of dunes in vulnerable coastal infrastructure, reintroducing eelgrass in subtidal areas, implementing a populating monitoring and management program for the invasive green crab; developing a comprehensive Great Marsh Coastal Adaptation Plan, and identifying >1200 barriers for retro fits and upgrades.

- Lower North Shore
  - Accepted into the new state program to be trained as a Municipal Vulnerability Preparedness Provider this September; 3 Lower North Shore communities received MVP grants - Marblehead, Peabody and Manchester - and I hope to work with them.
  - Assisted the City of Salem on grant applications for a continuing CZM CPR Winter Island Stormwater grant and a CZM Coastal Resiliency grant at Collins Cove and wrote letters of support for Beverly and Manchester grant applications.
  - Made public presentation on June 8 to Salem Conservation Commission about the living shoreline at Collins Cove and the MEPA ENF; completed a ESRI Story Map at <http://salemsound.org/researchResources.html>  
Working on a Tree Ordinance and a Tree Inventory for the City of Salem; ESRI Story map completed for the pilot study which will be updated when the current inventory completed this fall.
- South Shore
  - Vegetation response to seal level rise: Reviewed one-pager for dock project, planned survey protocol and created draft datasheet
- Cape Cod
  - Thin layer deposition (TLD) for salt marsh restoration: Two summer interns are developing criteria to identify potential salt marsh restoration sites that may benefit from TLD using literature reviews, interviews of practitioners and experts, and site visits. Cape Cod may be ideally situated to test and use TLD because of the many dredging projects.

### ***Remove barriers to streamflow and tidal flushing [SF]***

- Upper North Shore
  - Marsh Impoundment project development – This effort is in its infancy and just beginning to be designed. Mosquito ditching has caused over- and under-draining of the marsh and the working group is still trying to understand its extent. Pilot projects are being developed. The first step is to get state and federal regulators on board to determine what permitting is needed to implement the pilot projects.
- South Shore
  - Dam removals and stream continuity: Bound Brook - Hunters Pond pre-construction meeting and site visit for breach. The dam was recently breached and complete removal is expected soon. It is located at the head of tide. Third Herring Brook - Tack Factory removal celebration.
  - Streamflow restoration: Attended public meetings about Reservoir project, discussed modeling with SWMI project team, completed Scituate water use analysis and wrote water use profile report
- Cape Cod
  - Implement coastal habitat restoration and protection projects:
    - Site visit to potential restoration projects for CCWRRP Phase II: In the event that federal funding becomes available for Phase II of the Cape Cod Water Resources Restoration Project (CCWRRP), staff from APCC and NRCS attended site visits to potential restoration sites on Cape Cod. These included fish runs, salt marshes and stormwater remediation sites.
    - Salt marsh restoration projects, Herring River and Mayo Creek salt marsh restoration: Provided letters of support for the Herring River and Mayo Creek salt marsh restoration projects. Unfortunately, the Mayo Creek project did not receive an MET grant.
    - APCC's three summer interns are working on projects that will support monitoring and restoration, including salt marsh monitoring, testing cyanobacteria monitoring methods, video monitoring of juvenile herring, mapping natural communities, and outreach.

### ***Manage invasive species [IS]***

- Upper North Shore
  - Great Marsh Pepperweed Monitoring and Control: The RC led the planning and is leading the treatment efforts in Newbury, Ipswich, Salisbury and Newburyport.
  - Green Crab Population Monitoring: 13 sites in Essex Bay and 11 sites in Plum Island Sound were monitored in April. April results pointed towards an above normal population of green crab in



2017. Subsequent intermittent monitoring and first round July monitoring indicates the populations may not be as large as April data indicated and this merits further monitoring and investigation.

- MIMIC: Monitoring of marine invasive species for the 2017 season has begun. Data will be submitted to CZM at the end of the season. Results will be made available on MORIS.
- South Shore
  - Marine Invasive Monitoring: RC attended MIMIC meeting to plan and prepare for the 2017 season.

### ***Conduct education and outreach [E&O]***

- Upper North Shore
  - Green Crab Population monitoring: (1) Several green crab outreach events were supported by the RC including presentations/tastings at Ipswich Town Hall, the Clam, Crab and Cask Festival; Ipswich Brewery, Ipswich Chamber of Commerce, Woodman's and Tonno testing for legislators. (2) A green crab R&D nonprofit has received a \$20k grant to expand culinary marketing.
- Lower North Shore
  - **The Power of Salt Marshes:** Barbara shares the importance of salt marshes on Chronicle's show on Salt (WCVB Channel 5). <http://www.wcvb.com/article/chronicle-the-power-of-salt-marshes/10326708>
- Metro Boston
  - Connect people with sound science and best practices for the management of estuarine resources
    - The RC co-hosted Green Infrastructure for Coastal Resilience workshop on March 31.
    - Boston Harbor Habitat Atlas – mutually parting ways with EOL as the host, identified new platform (StoryMap) and technical support to launch new Atlas platform; working with relevant experts, about 60% of content gathered for 3 new habitats: diadromous fish passage, salt marsh, and sandy beach
  - Report on current, recent, and seminal ecological research in the Metro Boston region:
    - Initiated a study to characterize environmental issues in the Lower Neponset, specifically around the longstanding proposal to remove the T&H dam, reports of persistent elicit discharge, and questions related to equitable public access to the river; information-gathering involved a dozen meetings with numerous stakeholders
  - Engage stakeholders in opportunities to share and/or participate in research, management, and education
    - On April 11-12, held the Boston Harbor & Islands Science Symposium, which engaged 196 people in field trips, panels, concurrent and lightning talks, and keynote presentations.
    - The Boston Harbor Habitat Coalition became officially the **Boston Harbor Ecosystem Network** in May. At the meeting, which was attended by 32 people, presentations on diadromous fish passage, climate resilience and the regional food distribution center in Chelsea/Everett, and the Rumney Marsh were provided. The BHEN steering committee convened several times, and decided to host its first field trip to the Rumney Marsh. This was held on June 27, and was attended by 30 people, many of them new to the group.
    - The first draft of a social network analysis of Metro Boston region organizations was completed in time to be presented by poster at the BH&I Science Symposium in April. 30 organizations participated, though more will be invited this summer. This will provide a snapshot of “who is working with whom”.
- South Shore
  - Estuarine Stewardship and Education: Attended State of the Harbor forum as a panelist/presenter/mentor, planted beach grass with Scituate 4th graders, outreach to kindergartens in Duxbury and Plymouth about coastal habitats.
  - South Shore-specific outreach and communications: Attended South Shore Coalition legislative breakfast, attended South Shore Conservation Network organizational meeting, attended Watershed Action Alliance meetings and helped plan 2018 workshop.
- Cape Cod



- In July APCC issued two press releases urging stormwater management, one concerning the postponement of the MS4 stormwater permit, and a second one concerning the closure of shellfish beds in the Upper Cape due to an extreme rain event on July 7.

## **Staff Updates: Central Staff**

### **Executive Director**

- Meetings and conferences
  - Presented Summary of Findings from the Massachusetts Tide Gate Inventory at a Northeast Regional Ocean Council-sponsored workshop, “Using Technology and Emerging Practices to Improve Tidal Marsh Habitat Resiliency” (April 4-5, Newbury).
  - Attended Association of National Estuary Programs’ Annual Meeting and NEP National Meeting May 1-3. Presented two lightning talks to spark discussion: “[Do-it-Yourself Stakeholder Outreach](#)” and “[Regional Collaboration Case Study: NEOSEC](#)”
  - Attended Citizen Science Association Conference, including a full-day workshop re: data quality, metadata, and data management; presented findings from citizen monitoring surveys and plans for our Citizen Monitoring Coordinators’ Network using this [prezi](#) (May 17-20, St Paul MN).
- Partnerships and Collaboration
  - Reviewed 23 full proposals submitted to Massachusetts Environmental Trust, met with review committee (May 4, Boston).
  - Participated in EPA Appreciation effort (May 11, Boston)
  - Participated in NERACOOS Board of Directors meeting (May 22, online)
  - Reviewed 20 proposals to DEP’s 319 grant program, served on review committee (June 27, Worcester).
  - Began planning for the Fall 2017 Technical Transfer Conference of the National Estuary Program, to take place in Boston November 2-4.
  - Participated in conference calls with Association of National Estuary Program colleagues (May 16, 30, July 11).
- Program Management
  - Attended state training session regarding new mass.gov platform (May 8, Boston)
  - Met with each Regional Service Provider/RC to review 2017-2018 scopes of work (June 7, Newbury; June 13, Lynn; June 15, Dennis and Norwood).
  - Reviewed draft workplan with EPA Region 1 (June 8, Boston), submitted final FFY2017 workplan to EPA (July 11).
  - In consultation with EPA Region 1, developed draft “roadmap” for completing the CCMP per EPA’s 2016 guidance, and discussed plans for NEP Tech Transfer meeting (July 20)
  - Convened Nominating & Governance Committee to nominate Chair and Vice Chair candidates (June 29, conference call).

### **Staff Scientist**

- EDA 2.0
  - The report and updated maps from the consultant are now available and have been shared with NUMSC who will switch out the EDA1.0 maps and revise the categorization of embayment types and associated targets. It is anticipated that NUMSC will provide a draft report by January 2018. EDA2.0 describes 69 assessment units that include estuarine embayments and “inter-embayment areas” that include rocky shores, headlands and (barrier) beaches.
  - MassBays has been working with EPA ORD to explore the applicability of tools, specifically the Biological Condition Gradient (BCG) developed by EPA (2006) that may help MassBays set and implement target conditions on estuarine ecosystems. The next step is to present this approach to STAC for discussion and recommendations.
  - MassBays was invited by the Peconic NEP to provide a presentation of the EDA2.0 process. The PNEP is currently planning to put together a monitoring plan and feel that MassBays’ approach (which the PNEP Director witnessed during the April STAC meeting) will serve as a good model for the PNEP’s work. A webinar is scheduled for October (exact date TBD) and the management committee will be invited to listen in. More information forthcoming.

- Science and Technology Advisory Subcommittee (STAC)
  - STAC met April 25. During the meeting, a presentation of the overall EDA process and how the embayment characterization together with monitoring program data will serve to track and report on changing conditions in the bays was provided to the EPA Program Evaluation team. The EPA team had the opportunity to participate in the discussion that followed on next steps.
  - The next STAC meeting is scheduled for August 10. The agenda will include a comprehensive presentation of the BCG, how it works and its benefits. STAC will then discuss the applicability to MassBays and make recommendations for the management committee. The presentation will be recorded for those who may not be able to participate.
- Research projects
  - Coastal Acidification Project: MassBays continues work with UMass Boston on the construction of the coastal acidification observing system. The plan is to deploy by September 1. UMass Boston and MassBays have submitted a proposal for FFY18 MIT sea grant funding to expand on the coastal acidification system (more information forthcoming).
  - Eelgrass Mapping Project: (1) The final report of eelgrass mapping in Salem Sound using a protocol similar to the one applied in Duxbury-Kingston-Plymouth in 2015 is now available on MassBays' website. Maps will be available shortly. (2) In spring EPA provided funding for additional work in DKP based on some concerning findings in 2015 of substantial loss in eelgrass extent and deteriorating condition in the embayments, especially Duxbury. DMF and MassBays/NSRWA are working closely to possibly develop a rapid assessment protocol that can be applied by citizen scientists in order to keep a closer eye (by more frequent monitoring) on conditions in DKP as we try to figure out the causes of these losses.

### **Management Committee Member Updates**

Massachusetts Rivers Alliance: (1) MS4 is a co-issued permit and DEP can still enforce it since the state permit was neither repealed nor stayed. (2) The Drought Management Task Force, chaired by Vandana Rao updated the drought management plan to be more sensitive to environmental conditions and more action-oriented with close coordination with MEMA. It was noted that a bill is in process that may give authority to the Secretary to make the plan official.

North and South Rivers Watershed Association: (1) The Town of Scituate, with NSRWA assistance, is finishing the water management project on First Herring Brook funded by a SWMI grant. 60% of designed and permitting have been completed and ENF submitted to MEPA. (2) The Town of Scituate submitted a proposal under the Dam and Seawall grant program to restore herring passage to the reservoir and develop a 28 day drought resilience (\$1.2M). (3) Another Dam and Seawall proposal for funding to restore fish passage to 3<sup>rd</sup> Herring Brook was submitted to EEA.

Merrimack Valley planning Commission: The State is updating its Hazard Mitigation Plan which will incorporate climate change provisions and is similar to the Municipalities Vulnerability Preparedness Plan. Communities with a Municipal Vulnerability Preparedness Plan (MVPP) will be eligible for funding. A stakeholder meeting is scheduled in Westboro August 2, A suggestion was made to invite EEA's Director of Climate and Global Warming Solutions Kathy Theoharides to the next Management Committee meeting to discuss progress.

Association to Preserve Cape Cod: (1) The Cape Cod Commission received 604(b) funding to address stormwater coalition actions. The town of Chatham also received a technical assistance grant from the Cape Cod Commission to conduct work related to the stormwater coalition. (2) 12 out of 15 Cape Cod towns are subject to MS4 but all are impacted via the 208 work plan. Cape Cod towns will use MOUs from around the state as a template for the Cape Cod stormwater coalition. (3) APCC has identified over 160 projects for restoration on Cape Cod, with 1/3-1/4 on the Cape Cod Bay side.

U.S. Environmental Protection Agency: EPA Region 1 administrator has not yet been named. Deb Szaro remains as the Acting Administrator until further notice. (2) MS4 permit implementation for MA have been delayed for 1 year. However, MS4 for MassDOT and Boston are still in place. (3) NEP funding for FFY18 is included in the House budget, Senate will probably similar, at level funding (\$600k), but includes an additional \$1.5M competitive grant program.

Massachusetts Division of Marine Fisheries: (1) Ron Amedon is the new Commissioner for Department of Fish and Game. (2) Eelgrass mapping in Duxbury-Kingston-Plymouth is underway (MassBays funding) and preparations for restoration in Salem Sound have started.

Executive Office of Energy and Environmental Affairs: (1) The Drought Management Plan revision is in progress and updates are available online - changes will turn it into a more meaningful document that sets out indices for action, notification and coordination. The document will be available for public comment.

Division of Ecological Restoration: (1) Director Tim Purinton has moved on and Hunt Durey is Acting Director. The Director's position will be posted. (2) 39 proposals for stream crossing grants were received and are under review. Applications prepared by DPW and narratives reveal a good understanding and enthusiasm. \$750k are available and if DER provides funding some of the towns will be able to shoulder some of the costs. Awards will be announced after August.

Mass Audubon: The State of the Birds report is coming out soon and focuses on the impacts of climate change on the bird population in Massachusetts.

The Nature Conservancy: The organization is conducting a train-the-trainer re the Municipalities Vulnerability Preparedness Plan, led by Steven Long.

Salem Sound Coastwatch: 3 Communities (Marblehead, Peabody and Manchester) were awarded funding under the Municipal Vulnerability Preparedness Grant.

Metro Boston Regional Coordinator: Sitting on the Steering Committee (?). City of Boston discussing development of Boston Harbor Barrier, which includes 3 scenarios for shoreline protection options. UMass Boston, Woods Hole Group and Urban Harbors Institute are conducting ecological, physical and socioeconomic studies respectively. Findings will be shared with the Boston Harbor Ecosystem Network.

National Oceanographic and Atmospheric Administration: (1) NH has developed a tidal crossings protocol to prioritize removals. (2) The House Budget includes level funding for the FFY18 for the coastal management programs, NEERS, Sea Grant program. (3) 4 of the 19 NOAA Coastal Resiliency grants were awarded for projects in New England, 2 of which are in MA, including: a project led by CZM on the implementation of living shorelines, and a dam removal project conducted by Jones River.

The meeting adjourned at 12:35 PM.

### ***Upcoming Meetings***

Thursday, August 10<sup>th</sup>, 2017, 2 to 4pm

*Science and Technical Advisory Subcommittee meeting*

**Wednesday, October 25<sup>th</sup>, 2017**

***Management Committee meeting, 9:30am to 12:30pm***

*Followed by Communications Subcommittee meeting, 1 to 3:00pm*